

IN THE CLAIMS

1. (Currently Amended) A method for routing messages in a network, said method comprising the steps of

identifying, by a routing device, a first one message of a first plurality of messages, said first plurality of messages having at least one first routing treatment in common;

recording said first routing treatment, the routing treatment comprising switching information that determines an output port for switching packets, wherein said step of recording comprises building an entry in a flow cache, the routing device generating an accounting record for the first message and determining an encryption treatment for the first message, the accounting record including a time stamp for a first packet in the first one message, a time stamp for a recent packet in the first one message, a cumulative count for a number of packets in the first one message, and a cumulative count for a number of bytes in the first one message;

identifying a second one message of said first plurality of messages;

routing said second one message responsive to said first routing treatment.

2. (Original) A method as in claim 1, wherein

said first one message comprises a packet;

said first plurality of messages comprises a stream of packets associated with a selected source device and a selected destination device.

3. (Original) A method as in claim 2, wherein said stream of packets is associated with a first selected port number at said source device and a second selected port number at said destination device.

4. (Original) A method as in claim 1, wherein said first plurality of messages comprises a message flow.

5. (Original) A method as in claim 1, wherein said first plurality of messages comprises an ordered sequence, and said first one message has a selected position in said ordered sequence.

6. (Original) A method as in claim 1, wherein said first plurality of messages comprises a stream of messages between a selected pair of transport access points.

7. (Canceled)

8. (Original) A method as in claim 1, comprising the step of identifying a message of a second plurality of messages, said second plurality of messages having at least one second routing treatment in common, said second routing treatment differing from said first routing treatment.

9. (Original) A method as in claim 1, wherein said routing treatment comprises access control information for said first one message.

10. (Original) A method as in claim 1, wherein said routing treatment comprises a destination output port for routing said first one message.

11. (Original) A method as in claim 1, comprising the steps of recording information about said first plurality of messages; and transmitting said information to at least one selected device on said network.

12. (Original) A method as in claim 11, wherein said information comprises a transmission time for an initial one message in said plurality of messages; a transmission time for a most recent one message in said plurality of messages; a cumulative count of bytes in said plurality of messages; or a cumulative count of said one messages in said plurality of messages.

13. (Original) A method as in claim 11, comprising the steps of receiving said information at said selected device on said network; recording said information in a database at said selected device; and making said information available to a second device on said network.

14. (Currently Amended) A system for routing packets in a network, said system comprising

means for receiving a stream of packets, said stream of packets comprising a plurality of message flows to be received by a routing device, each said packet being associated with one selected message flow, each said message flow having at least one routing treatment in common, the routing treatment comprising switching information that determines an output port for switching packets,;

means for associating packets with a first one of said message flows;

a flow cache having an entry associated with said first one message flow, the routing device generating an accounting record for the first message and determining an encryption treatment for the first message, the accounting record including a time stamp for a first packet in the first one message, a time stamp for a recent packet in the first one message, a cumulative count for a number of packets in the first one message, and a cumulative count for a number of bytes in the first one message;

means for routing packets responsive to entries in said flow cache.

15. (Original) A system as in claim 14, wherein said entry comprises access control information.

16. (Original) A system as in claim 15, wherein said entry comprises a destination output port for routing packets.

17. (Original) A system as in claim 14, comprising means for transmitting information responsive at least one said entry to at least one selected device on said network.

18. (Original) A system as in claim 17, wherein said information comprises a transmission time for an initial one message in said plurality of messages; a transmission time for a most recent one message in said plurality of messages; a cumulative count of bytes in said plurality of messages; or a cumulative count of said one messages in said plurality of messages.